



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,962	11/18/2003	Rainer Birkenbach	SCHWP0184USA	5397

7590 12/13/2005

Don W. Bulson, Esq.
Renner, Otto, Boisselle & Sklar, P.L.L.
19th Floor
1621 Euclid Ave.
Cleveland, OH 44115

EXAMINER

KASZTEJNA, MATTHEW JOHN

ART UNIT	PAPER NUMBER
----------	--------------

3739

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

e

Office Action Summary

Application No.

10/715,962

Applicant(s)

BIRKENBACH ET AL.

Examiner

Matthew J. Kasztejna

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 9, 10, 20, 22, 24 and 25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-3, 6, 9, 10, 20, 22, 24 and 25 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 29 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Notice of Amendment

In response to the amendment filed on October 24, 2005: amended claims 1, 20 and 22; the cancellation of claims 4-5, 7-8, 11-19, 21 and 23; and new claims 24-25 are acknowledged. The current rejection of claims 1-3, 6, 9-10 is *withdrawn*. Claims 20 and 22 stand rejected. The following new and reiterated grounds of rejection are set forth:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, 9, 20 and 24 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,642,836 to Wang et al. in view of U.S Patent No. 6,659,939 to Moll et al.

In regards to claims 1-2, 20 and 24, Wang et al. disclose a device for coupling at least two medically applicable instruments comprising: a central control unit 12 coupled to input and/or output connections of at least two control apparatuses 14, the central control unit including: at least one processor which (i) receives output signals from the at least two control apparatuses and (ii) converts the output signals into a unified format (see Col. 2, Lines 3-22); and at least one processor 32 which (i) receives inputted control signals, (ii) converts the control signals into formats corresponding to

Art Unit: 3739

the respective at least two control apparatuses, and (iii) transfers the converted control signals to the at least two control apparatuses 14 to control the at least two medically applicable instruments 16; a central input device coupled to the central control unit via a bus (see Col. 2, Lines 34-63); and a central output display device coupled to the central control unit via a bus; wherein the bus provides electrical separation between the central input device and/or the central output display device and the central control unit (see Col. 3, Lines 13-57); and wherein the central input device, the central output device and the two medically applicable instruments are positioned in the operating theater.

Wang et al. are silent with respect to wherein the central control unit and at least two control apparatuses are positioned outside the operating theater. Moll et al. teach of an analogous medical system which is capable of having multiple master control rooms in which a central control system is positioned wherein a master surgeon is available to offer support to the surgeon in the operating room (see Fig. 27). This central control system would be inherently connected to the central input and output devices in the operating room (see Col. 45, Lines 50-56). It would have been obvious to one skilled in the art to position the central control unit and at least two control apparatuses outside the operating theater in the system of Wang et al. to provide numerous advantages. As taught by Moll et al. having multiple master surgeons and additional support rooms would ensure the master surgeon does not have to scrub in and out of every procedure. Further, the master surgeon may become extremely specialized in performing part of a surgical procedure by performing just that part of a procedure over and over on many more patients than he otherwise would be able to treat. Thus, particular surgical

procedures having distinct portions might be performed much more quickly by having multiple surgeons, with each surgeon each performing one part of the procedure and then moving onto another procedure, without scrubbing between procedures.

Moreover, if one or more patients (for whatever reason) would benefit by having a surgeon actually be present, an alternative surgeon (different from the master surgeon) may be on call to one or more operating rooms, ready to jump in and address the patient's needs in person, while the master surgeon moves on to treat another patient. Due to increased specialization, further advances in the quality of medical care may be achieved (see Col. 46, Lines 26-52).

In regards to claim 6, Wang et al. disclose a device for coupling at least two medically applicable instruments comprising a central input device 32 coupled to the central control unit and wherein the input device is a voice control interface (see Col. 5, Lines 7-37).

In regards to claim 9, Wang et al. disclose a device for coupling at least two medically applicable instruments further comprising a storage unit 44 for storing data captured by the medical instruments and/or data inputted via the data input device (see Col. 5, Line 55 – Col. 6, Line 34 and Fig. 3).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,642,836 to Wang et al. in view of U.S. Patent No. 6,659,939 to Moll et al. in further view of U.S. Patent No. 6,117,127 to Helmreich et al.

In regards to claim 3, Wang et al. and Moll et al. disclose a device for coupling at least two medically applicable instruments, wherein the instruments are coupled to at

Art Unit: 3739

least two control apparatus but are silent with respect to the at least two control apparatuses coupled to the at least two medical apparatus being provided in a rack. Helmreich et al. teach of an analogous device for providing a medical workstation wherein all of the handheld instruments and components necessary for conducting a surgical procedure are readily available at a single common location (see Fig. 1). It would have been obvious to one skilled in the art at the time the invention was made to include a rack to hold the control apparatuses in the device of Wang et al. and Moll et al. in order to provide a more organized operating environment wherein all components are in a concentrated region as taught by Helmreich.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,642,836 to Wang et al. in view of U.S. Patent No. 6,659,939 to Moll et al. in further view of U.S. Patent No. 6,471,363 to Howell et al.

In regards to claim 10, Wang et al. and Moll et al. disclose a device for coupling at least two medically applicable instruments, wherein the instruments are coupled to at least two control apparatus but are silent with respect to at least one device forming the system being mounted to a ceiling of an associated operating room. Howell et al. teaches of an analogous device for surgical purposes that is attached to the ceiling of an operating theater and comprises various cameras and monitors, which can be pivoted relative to each other, as disclosed by applicants specification. It would have been obvious to mount at least one device in the system of Wang et al. and Moll et al. to the ceiling in order to provide optimal viewing in a surgical environment as taught by Howell et al.

/

Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,642,836 to Wang et al. in view of U.S Patent No. 6,106,512 to Cochran et al.

In regards to claims 22 and 25, Wang et al. disclose a device for coupling at least two medically applicable instruments, wherein the instruments are coupled to at least two control apparatus but are silent with respect to wherein the central input device and the single, central output display device are comprised of a single touch screen display. Cochran et al. teach of an analogous system or controlling a plurality of microsurgical instruments having a data communications bus and a user interface 5 connected to the data communication bus for control over the various instrumentation (see Fig. 1 and Col. 6, Lines 28-55). It would have been obvious to one skilled in the art at the time the invention was made to use a flat panel screen as a central input and output device in the system of Wang et al. in order to optimize the performance of the operator and the instruments during surgery as taught by Cochran et al.

Response to Arguments

Applicant's arguments filed October 24, 2005 have been fully considered but they are not persuasive.

Applicant states Wang et al. fails to disclose a system wherein the at least two apparatuses have different input and/or output specifications and wherein the central control unit converts different display information into a predetermined, defined image to be displayed on the output device. However, Wang et al. discloses a central processor 44 which inherently converts signals from the slave devices and other devices into

digital signals for output to the video monitor 86, and thus as broadly as claimed a unified format. The system of Wang et al. is capable of controlling multiple apparatuses and systems from different manufacturers and thus the control apparatuses are inherently capable of having different input and/or output specifications. Furthermore, applicant states the failure to teach of a single, central input and output display device. Cochran et al. teach of controlling input via a touch responsive screen with an option to include the foot assembly 15 and thus discloses a system capable of performing with a single, central input and output means.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kasztejna whose telephone number is (571) 272-6086. The examiner can normally be reached on Mon-Fri, 8:30-6:00.

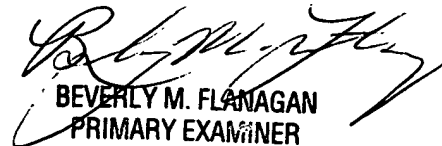
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3739

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK *mk*

12/6/05


BEVERLY M. FLANAGAN
PRIMARY EXAMINER